
Approaches to Credit and Credit Enhancement

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The Mechanics of a Bond Sale Seminar

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Overview

- What is Credit?
- Does it Matter?
- How to Improve Credit
- Who Can Help Enhance Credit?
- The Enhancement Options
- How Do You Assess the Options
- Case Studies...and War Stories
- It's Not Just About Bond Insurance

What Is Credit and Why Does it Matter?

Issuers Use Ratings in Many Ways

**Finance Officers
Treasurers
and Other Issuers**

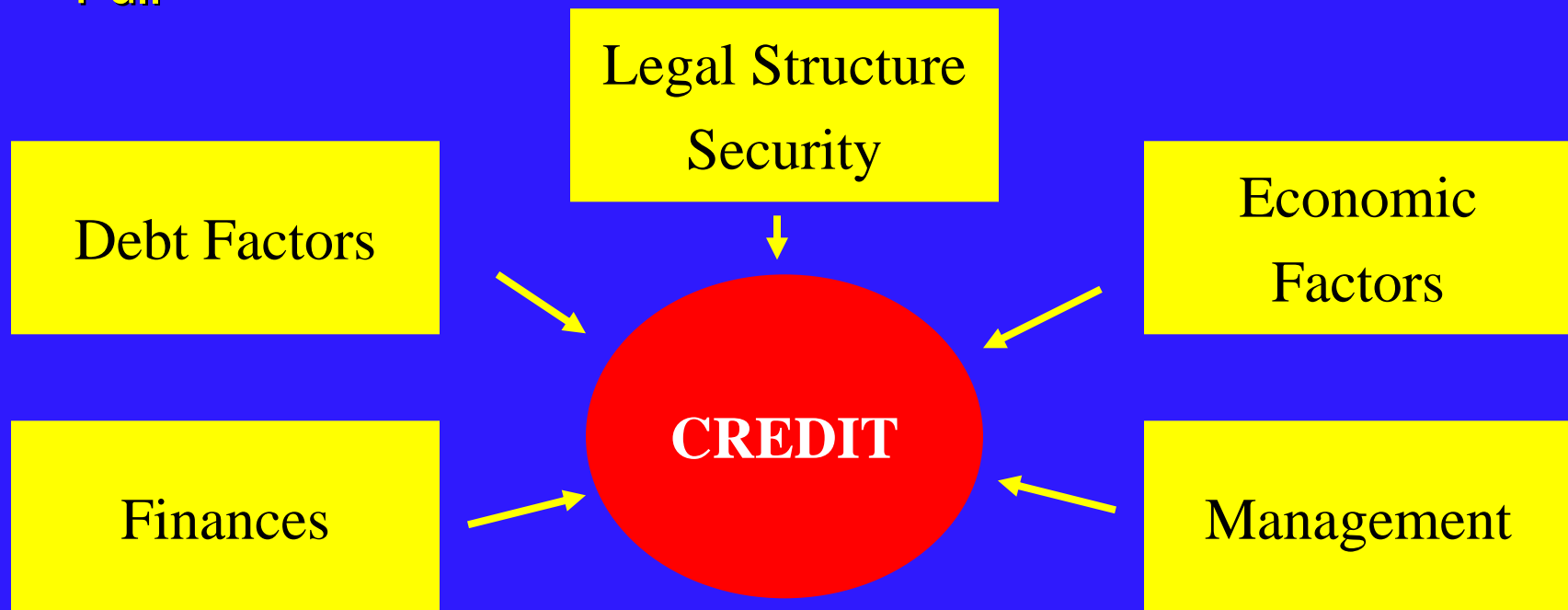
Financial Officer's
Responsible for
Municipality Rating

Investors in
Municipal Bonds
and Other Securities

Managers of, or Investors
In, Rated
Investment Portfolios

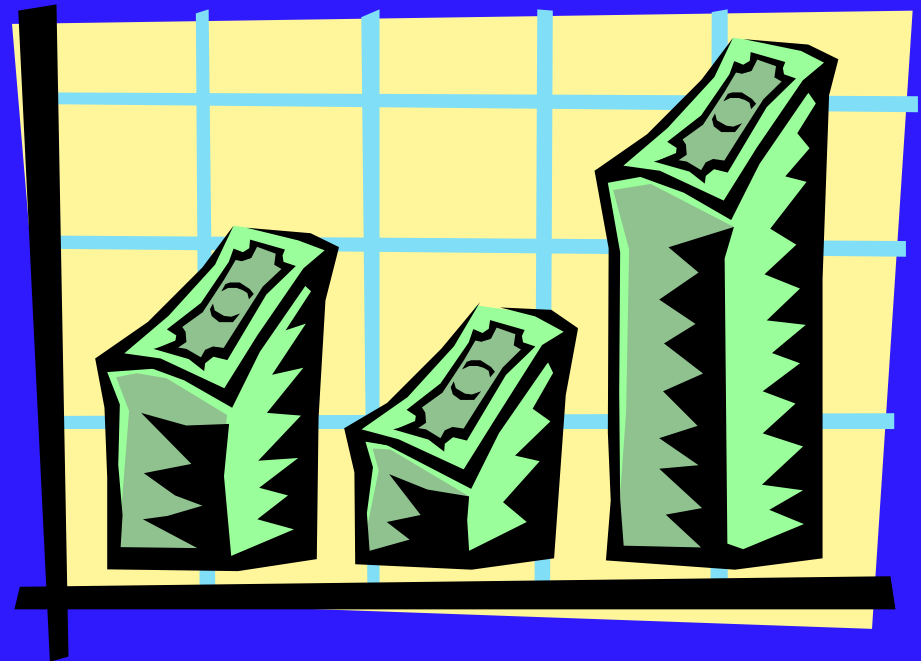
What is Credit?

- An Evaluation of a Borrower's Willingness and Ability to Repay its Obligation
- Considers Whether Payment Can Be Made on Time and In Full



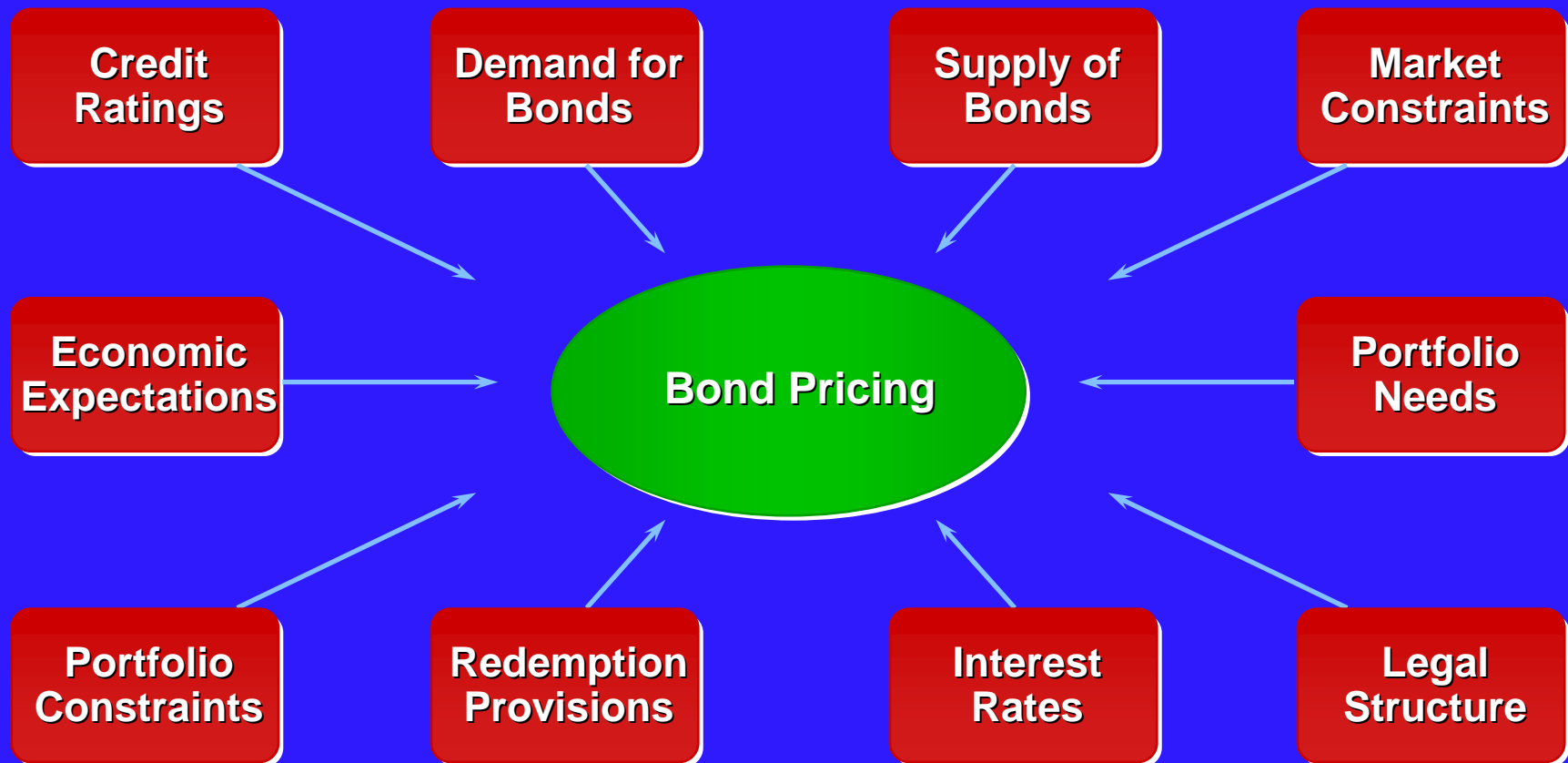
Role of the Rating Agencies

- Credit Evaluation
 - Issuer's Ability to Pay
 - Issuer's Willingness to Pay
 - Relative to Other Tax-Exempt Issuers
- Used by Investors
 - Investor's Willingness to Buy Securities
 - At What Price?



Factors in the Pricing of Bonds

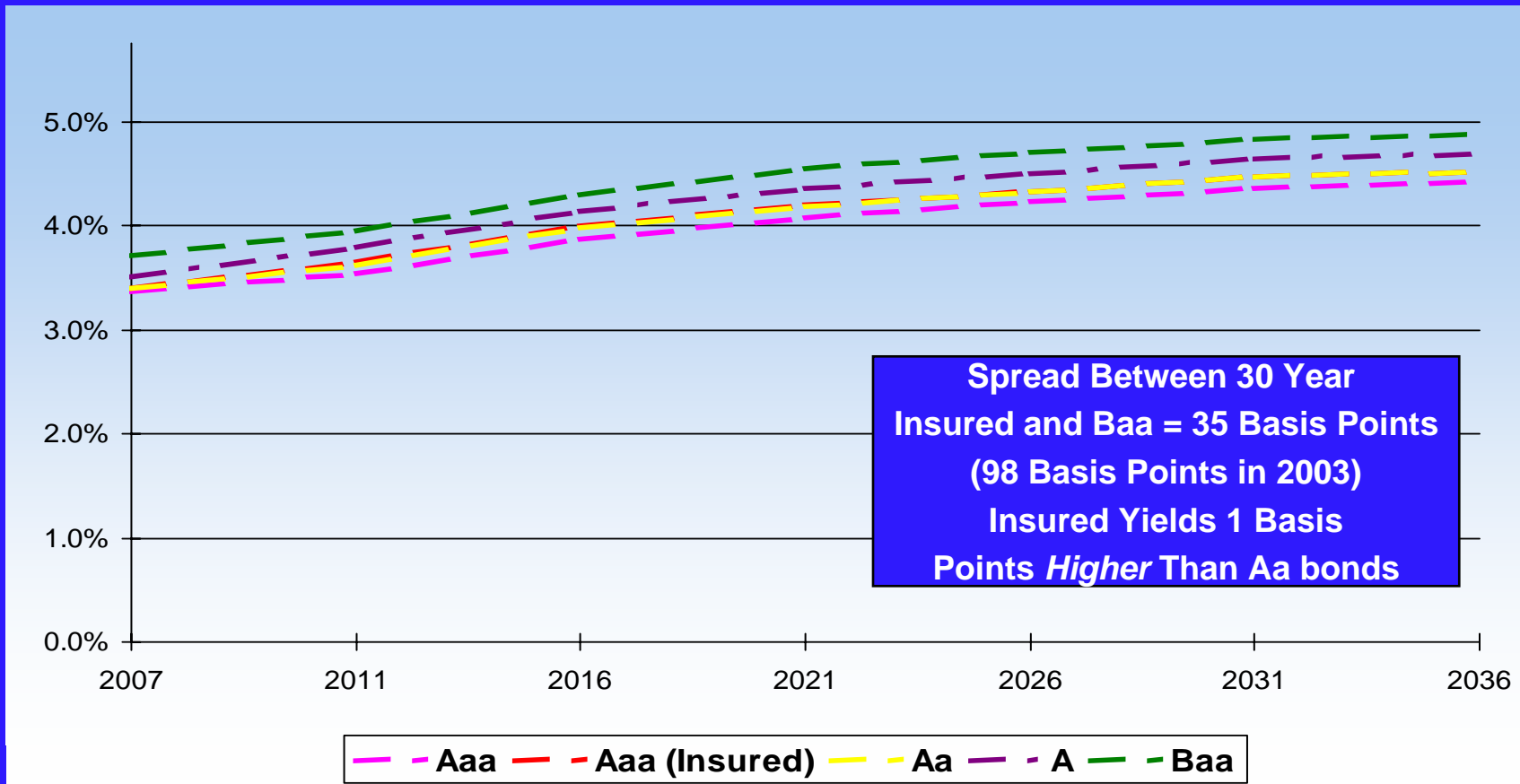
Credit is an important factor, but just one of many



Interest Rates Rising?



Impact of Ratings on Credit Yields



Representative Yields, March 9, 2006

Source: Municipal Market Data (Thompson)

Current Insured and G.O. Yields

National General Obligation Bonds

	Insured	Aaa	Aa	A	Baa	Calif. Insured
1 Year	3.41	3.37	3.41	3.51	3.71	3.37
5 Years	3.65	3.54	3.63	3.79	3.96	3.69
10 Years	4.00	3.87	3.98	4.14	4.30	4.08
15 Years	4.21	4.08	4.19	4.36	4.56	4.32
20 Years	4.34	4.23	4.33	4.51	4.71	4.47
25 Years	4.47	4.37	4.47	4.65	4.83	4.59
30 Years	4.52	4.42	4.52	4.69	4.87	4.64

Source: Municipal market Data (Thompson)

Who are the Rating Agencies?

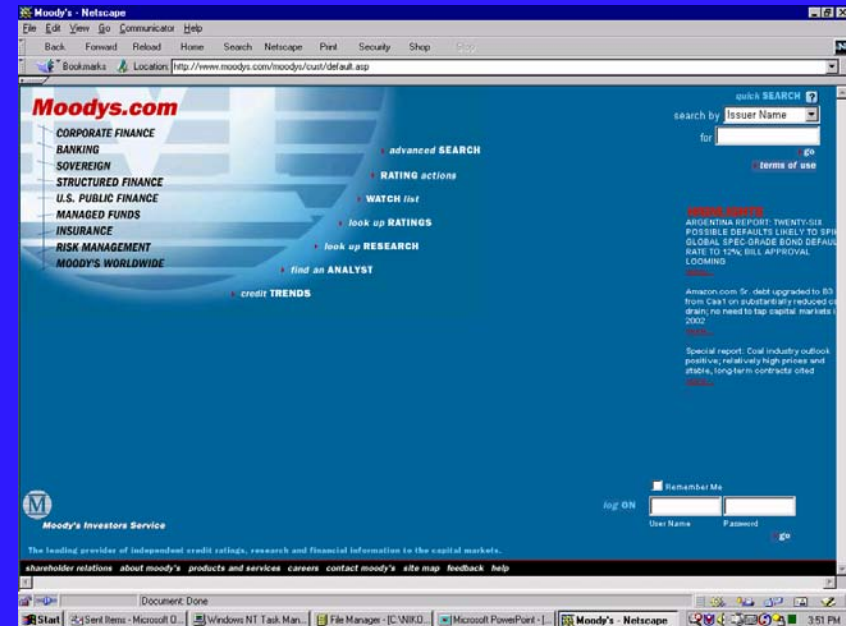


Major Rating Agencies

- Moody's Investors Service
- Standard & Poor's Ratings Service
- Fitch Ratings

Moody's Investors Service

- In 1900 John Moody Published *Manual of Industrial and Corporation Securities*
- In 1909 Introduced First Bond Ratings with Symbols Ranging from Aaa Through C
- California Offices in San Francisco



www.moody.com

Standard & Poor's

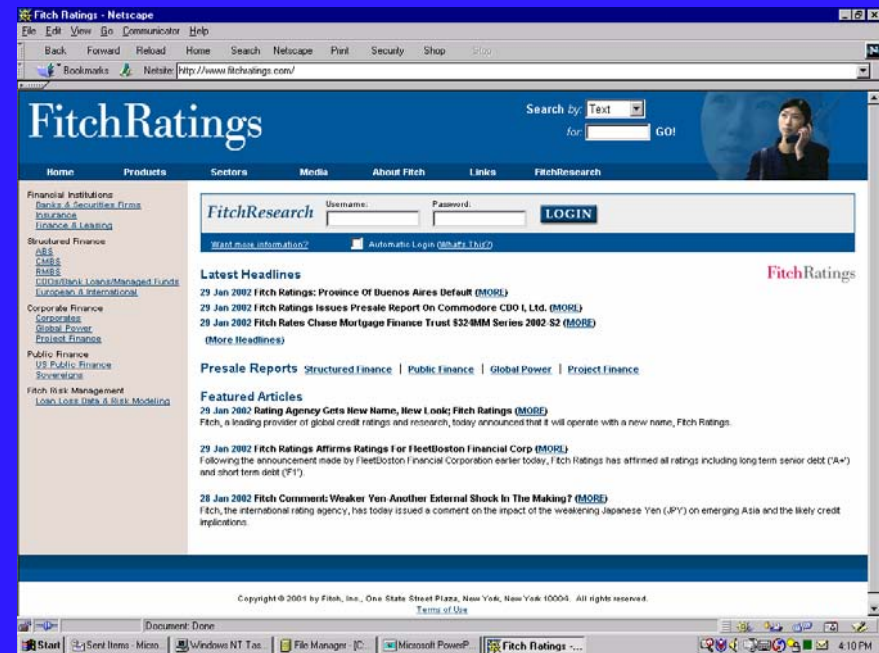
- Traces its Roots to 1860; Henry Varnum Poor Published Guide to U.S. Railroads
- Began Rating Bonds in 1916 with symbols ranging from AAA to D
- Subsidiary of McGraw-Hill Companies, Inc. since 1966
- California Offices in San Francisco



www.standardandpoors.com

Fitch Ratings

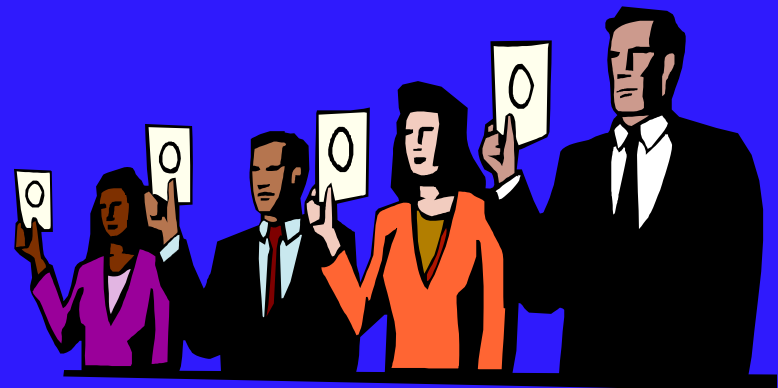
- Established in 1912, Introduced Rating Symbols AAA to D in 1922
- 1989: New Management and Capital Infusion
- Mergers with IBCA of London and Duff & Phelps
- California Office in San Francisco
- 2002: Newly Branded as “Fitch Ratings”



www.fitchratings.com

How Do Rating Agencies Work?

- Independent so Each is Different
 - Different Criteria
 - Different Rating Definitions
- Understand the Process
 - Site Visits
 - Role of Lead Analyst
 - Role of Rating Committees
 - Appeals
- Product is Not Just Ratings
 - Reports
 - Credit Queries



Ratings

What Is A Rating?

- Notation Summarizing the Relative Creditworthiness of a Specific Debt Obligation or Group of Parity Obligations
- Letter Category
- Band of Credit Quality

Municipal Scale

- *Municipal* Bond Rating Scale is Distinct from the *Corporate* Bond Rating Scale
- November 2992 Study of Default Rates Between 1970 and 2000:
 - Average Credit Loss Rates on Moody's-Rated Municipal Bonds Lower Than Loss Rates on **Aaa**-Rated Corporate Bonds
 - Only 18 Moody's-Rated Municipal Issuers Defaulted on Long-Term Bonds, of Which 10 Were Not-For-Profit Hospitals. No GO's or Essential Service Revenue Bonds Have Defaulted
- Municipal Investors Have Demanded Finer Distinctions Within the Narrow Band of Potential Credit Losses Than Those Provided for Corporate Bonds

What A Rating Is NOT:

- A Judgment or Statement Regarding Any Aspect of Public Policy
- A Political Statement in Favor of, or Against, a Particular Person or Administration
- A Dictate of What Should be Done or How a Matter Should be Handled

The Rating Scale

Category:		Moody's*	Category:	Fitch **
Strongest		Aaa	Highest	AAA
Very Strong		Aa1, Aa2, Aa3	Very High	AA+, AA, AA-
Above Average		A1, A2, A3	High	A+, A, A-
Average		Baa1, Baa2, Baa3	Good	BBB+, BBB, BBB-
Below Average		Ba1, Ba2, Ba3	Speculative	BB
Weak		B1, B2, B3	Highly speculative	B
Very Weak		Caa1, Caa2, Caa3	High default risk	CCC
			Default probable	CC
			Default is imminent	C
			Default	DDD, DD, D

* Moody's categories are defined relative to other US municipal or tax-exempt issuers or issues.

** Fitch and S&P use similar scales. Ratings may be refined with a '+' or '-'

Investment Grade

Non-Investment Grade

Benefits Of A Rating

- Increases Investor Acceptance
- Current Economic Environment
- Current Market Environment
- BOTTOM LINE – Lower Interest Cost
- Ancillary Benefits to You



The Rating Process

- The Beginning: Decisions and Documents
- The Middle: Lets Talk
- The End: Rating Committee, Communication and Dissemination
- Appeal Process, If Necessary

Elements of General Credit Analysis

- Economy
- Debt
- Finances
- Management
- Issue Legal Structure



Rating Agency Products

- Informal Estimator
- Credit Indicator
- Full, Published Issue/Issuer Rating
- Credit Enhanced Rating (Insured or Bank Supported)

Rating Changes

- Reflect Changes in Underlying Credit Factors
- Changes Significant Enough to Warrant a Rating Adjustment
- Affect Issue/Issuer Underlying Rating Only (Not Credit Enhanced Rating)



Rating Outlook

- Likely Direction of Rating if Current Patterns Continue
- Potential for Rating Change in the Medium Term
- Positive, Negative or Stable

Watchlist

- Indicates Rating is Under Review for Possible Change
- Specifies Possible Upgrade, Downgrade or Uncertain
- Rating Action Within a Relatively Short Time Period

Positive Management Factors

- Fund Balance/Reserve/Working Capital Policy and Practice
- Regular Financial Reporting and Monitoring
- Multi-year Financial Forecasting
- Contingency Planning
- Rapid Debt Retirement
- Debt Affordability Policies, Practices and Reviews

Warning Signs

- Cash Basis Accounting
- Qualified Audit Opinion for Material Weakness
- Trend of Deficit Financing
- Over-Reliance on Non-Recurring Revenue (Including Interfund Borrowing)
- Persistent Budgetary Impasses
- Pension Contribution Deferral
- Extraordinary Unfunded Pension Liability
- Extraordinary Other Post Employment Benefits Liability
- Debt Restructuring That Defers Debt Service

Enhancing Credit Internally

Internal Enhancements

- Revenue Bonds
 - Additional Bonds Test
 - Lien Structure
 - Rate Covenant
 - Reserves
 - Rate Stabilization

Internal Enhancements

- Lease Revenue Bonds (Certificates of Participation)
 - Nature of Assets Leased
 - Asset Transfer
 - Earmarking of Revenues
 - Insurance Requirements
 - Timing of Payments
 - Reserves

Internal Enhancements

- General Obligation Bonds
 - Amortization Structure
 - Debt Levels
 - Limited Options exist to improve bond structure
 - Improve Credit Perception of Fundamental Credit

External Enhancement: What Are The Options?

External Enhancement Options

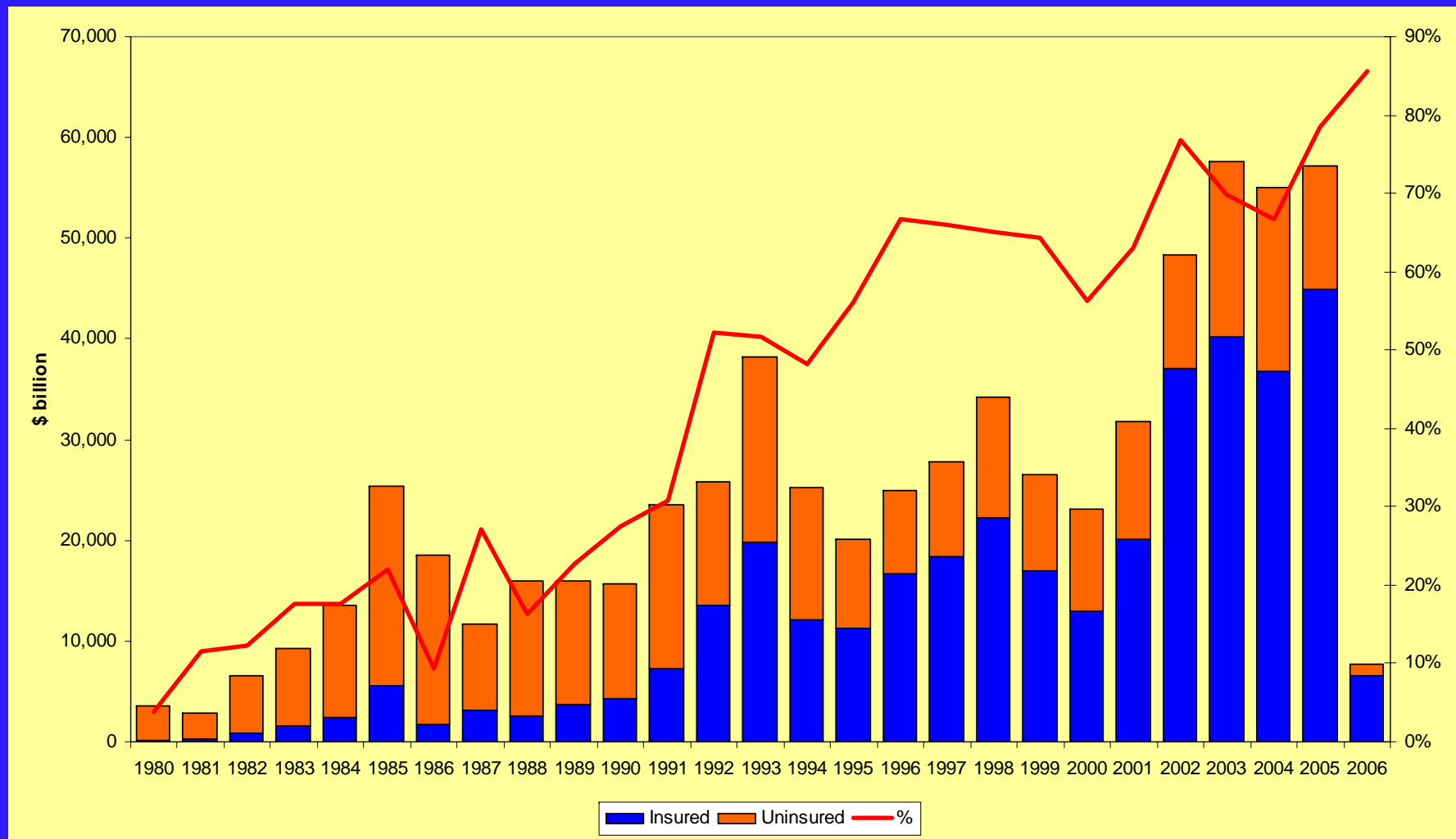
- Bond Insurance
- Letters of Credit
 - On the Deal
 - On the Revenue Stream
- Intercept Program
- Innovative Structures
 - Multiple Pledges

Enhancement and Bond Structures

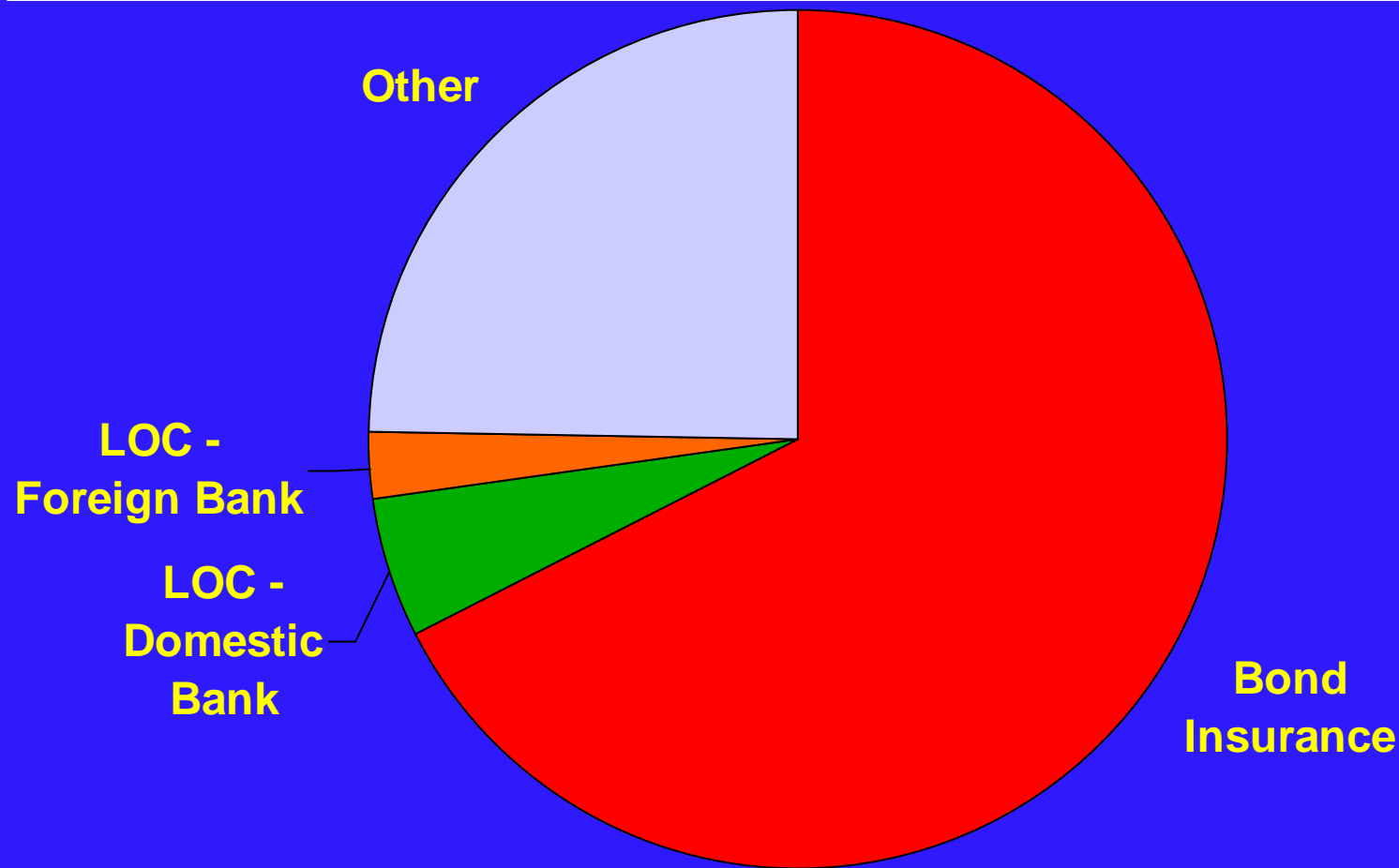
Non-Rated	Long Term Fixed Short Term Fixed	Limited Universe of Buyers
Rated	Long Term Fixed Short Term Fixed Notes	Broader Buyer Base
Letter of Credit	Variable Rate (Variable Rate Demand Obligations or CP) Notes	Money Market Funds and other short-term investors
Municipal Bond Insurance	Long Term Fixed Short Term Fixed Insured Floaters Auction Rates	Broadest Mix of Buyers, including retail and institutions

Municipal Bond Insurance

Growth of Bond Insurance in California

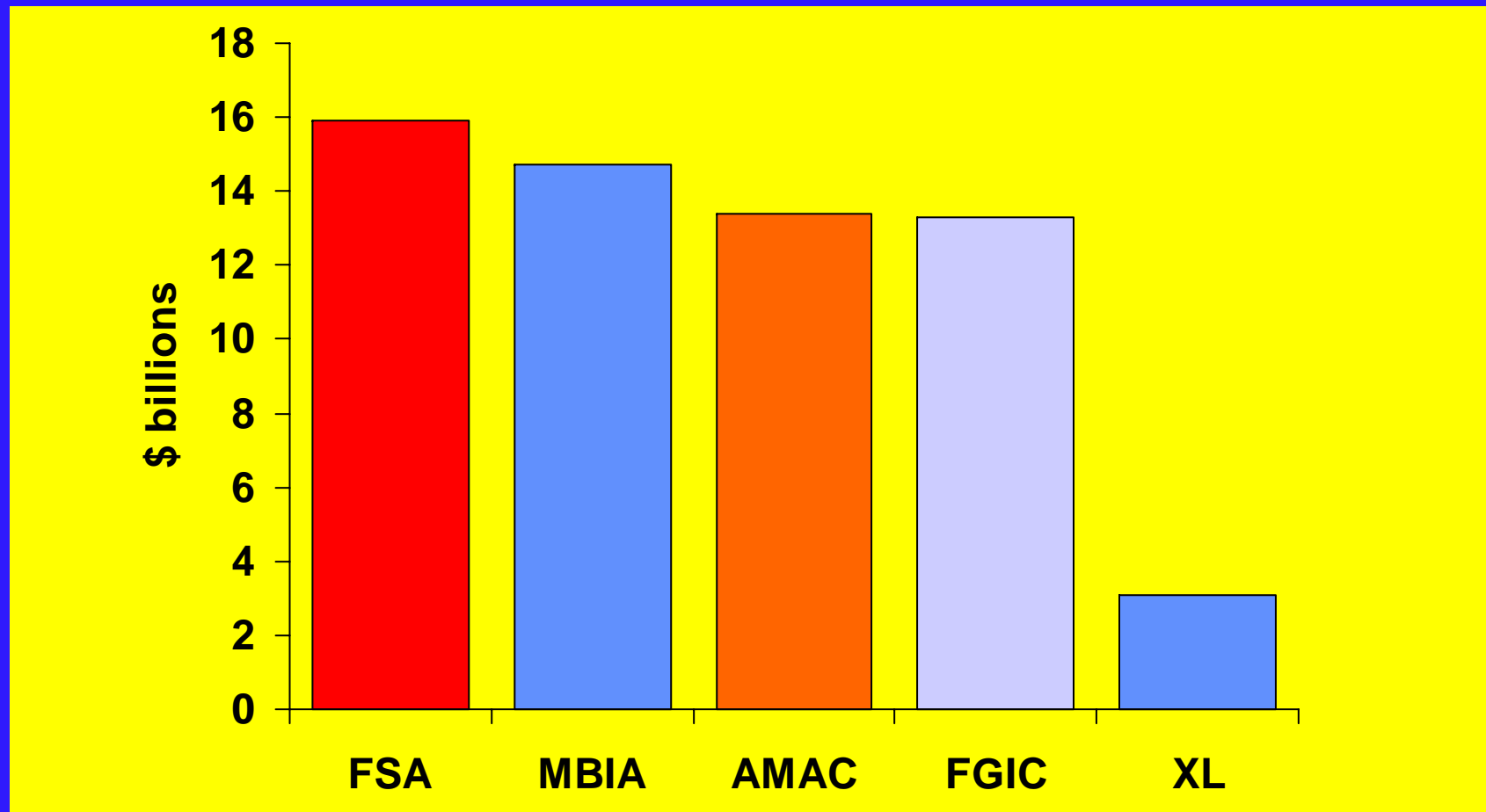


% of 2005 California Market Insured



Source: Thompson Financial; California Financings Only.

2005 California Bond Insurer Share



Source: Thompson Financial; California Financings Only.

Growing Number of Insurers

	<u>First Policy</u>
● Ambac Indemnity Corporation (Ambac)	1971
● Municipal Bond Investors Assurance Corp. (MBIA)	1974
● Financial Guaranty Insurance Co. (FGIC)	1984
● Financial Security Assurance (FSA)	1985
● Capital Markets Assurance Corp. (CapMAC)	1987
● Connie Lee Insurance Company (CLIC)	1991
● Asset Guaranty Insurance Company (AGIC) (subsidiary of Enhance Reinsurance)	1997
● American Capital Access (ACA)	1997
● Dexia Acquires FSA Holdings	2000
● XL Insurance Earns Aaa/AAA/AAA	2001

Source: MBIA and S&P

Bond Insurance Issues

- Does the Insurer Matter
 - How Do They Trade?
 - Premiums
 - Deal Structure
- What is the Process for Insuring a Bond?
 - When to Get Them Involved?
 - Face-to-Face?
 - “Competitive vs. Negotiated”
- New Developments in Premiums
 - How are Premiums Paid
 - 2006 Premiums

Letters of Credit

What Are Letters of Credit?

- Arrangement with a Bank that Provides Additional Security that Money will be Available to Pay Debt Service on a Bond Issue
- Letters of Credit Can Provide:
 - Credit Enhancement
 - Liquidity

Basic Mechanics

- Typically Used for Variable Rate Transactions
- Term of LOC Typically From 1 to 5 Years
- Annual Fees are Calculated as a % of Outstanding Principal
- Quoted in Basis Points (b.p.): 100 b.p. = 1%
- May Require Commitment Fee

Types of Letters of Credit

- Direct Pay Letter of Credit
 - Paid from Bank Funds
 - Annual Fees for Bank's Unconditional Obligation to Pay Draws on the LOC
 - Acceleration of Debt in Event of Default, Paid from Draw on LOC
- Prioritized Direct Pay Letter of Credit
 - Holdings Paid from LOC Only to the Extent Other Sources Held by the Trustee are Insufficient
 - Bankruptcy Concerns

More Types of LOCs

- Standby Letter of Credit
 - Issuer Funds Used Prior to Draw on LOC
 - If Issuer Funds are Insufficient, Bonds Subject to Mandatory Redemption or Tender
 - One Draw - Holders Paid Principal and Accrued Interest, the Transaction is Collapsed

Structured Finance Ratings

- If Bank Will Provide Complete and Timely Payment, the Bonds are Re-Rated Based on Bank's Credit Rating
- Factors
 - Payment Structure
 - Enforceability of the LOC
 - Adequacy of Coverage
- Detailed Requirements
- Mandatory Tenders Prior to Substitution or Termination

Moody's Short-Term Ratings

MIG1

Superior Credit Quality. Excellent protection is afforded by established cash flows, highly reliable liquidity support, or demonstrated broad-based access to the market for refinancing.

MIG2

Strong Credit Quality. Margins of protection are ample, although not as large as in the preceding group.

MIG3

Acceptable Credit Quality. Liquidity and cash-flow protection may be narrow, and market access for refinancing is likely to be less well established.

SG

This designation denotes speculative-grade credit quality. Debt instruments in this category may lack sufficient margins of protection.

Comparative Short Term Rates



Not All LOCs are Created Equal

- In Deciding on an LOC Provider, the Borrower Should Consider the Ongoing Bank Fees and the Expected Trading Value of the LOC
 - Banks have multiple ratings
 - Banks have changing ratings
 - Market perceptions / news
- Lowest Cost is Calculated Using Both the LOC Fees and Trading Premium/Discount
- Beware of Renewal Risk

Credit/Liquidity Alternatives

Strongest Investment Grade Credits		Other Investment Grade Credits	
No Credit or Liquidity Support	Liquidity Support Only	Irrevocable Letter of Credit	Bond Insurance with Liquidity Support
<ul style="list-style-type: none"> ➤ Payment of principal and interest not credit enhanced ➤ Unrestricted liquid assets provide liquidity support ➤ Requires stable underlying credit of at least "A" ➤ Issuer must have substantial unrestricted liquid assets (at least 3 times outstanding variable rate debt) 	<ul style="list-style-type: none"> ➤ Payment of principal and interest not credit enhanced ➤ Commercial bank provides liquidity support ➤ Requires stable underlying credit of at least "A" ➤ Liquidity bank must have short-term ratings of at least "P-1" and "A-1" 	<ul style="list-style-type: none"> ➤ Letter of credit guarantees payment of principal and interest ➤ Letter of credit provides liquidity support 	<ul style="list-style-type: none"> ➤ Bond insurance guarantees payment of principal and interest ➤ Commercial bank provides liquidity support

Liquidity Facilities

- Mechanics
 - Used on Variable Rate Transactions
 - Ensures Investors with Ample Liquidity in the Event of a Bond Tender; Not Considered a Long-Term Security Vehicle
 - Drawn Upon in a Failed Remarketing
 - Term of Liquidity Facility Typically 1 to 5 Years
- Borrowers Rated AA- or Higher will Often Need Only a Liquidity Facility - No LOC
 - Borrowers Rated A+ or Below May Need to Combine a Liquidity Facility with Bond Insurance to Enhance the Long-Term Rating

LOC Considerations

- Factors to Consider:
 - Annual Fees
 - Ability to Choose
 - Flexibility in Documents (Sort of!)
 - Make Choice of Providers
 - VRDOs: Low, Low Rates
 - Ability to Pick and Choose Liquidity and/or Enhancement

More Considerations

- But There Are Pitfalls ...
 - Level of Enhancement May Change (Rating Volatility)
 - Volatility in Trading Value
 - Legal Fees and Time Associate with Structuring
 - VRDO Interest Rate Risk
 - Short Term of LOC: Renewal Risk
 - Dominated by Foreign Banks: “Home Office” Approval
- Other Options Available: Insurers Can Insure Floaters Too
- Variable Rate Exposure Through Interest Rate Swaps

Revenue Intercept Programs

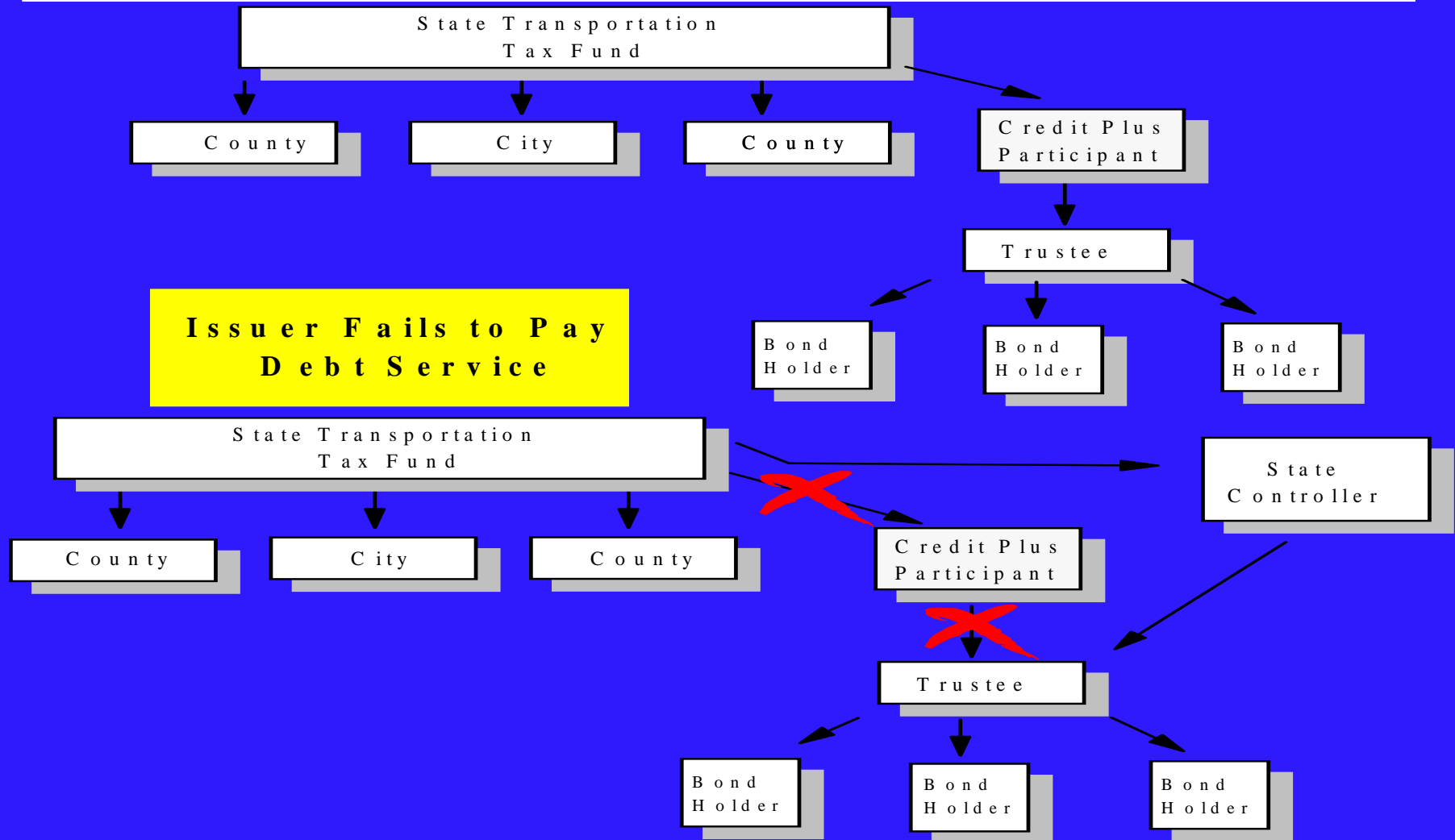
MVLF Intercept Program

- CDIAC was Driving Force in Creating Mechanism for California Communities
- Cities and Counties May Pledge Monthly Motor Vehicle License Fee (MVLF) Apportionments
- Standard & Poor's "A" Rating Through "Credit Plus" Program
- Intercepting an Existing Revenue Source

MVLF Intercept Program

- In Past Provided Opportunities for Increasing Credit Rating
- Inexpensive Enhancement for Lease Revenue Bonds and Certificates of Participation
- State Uncertainty With Respect to MVLF Places Cloud Over Application Benefit in Today's Market

How the State Intercept Works



Getting Creative: Innovations

Getting Creative: Innovations

- Pooling of Credits
- Contingent Obligations
- Debt Service Reserve Fund Make-Up Provisions
- Changing View on Moral Obligations
- Corporate Guarantees
- Public Entity Guarantees
- Prioritization of Liens: Senior/Subordinate Structures

Case Study: CSU Channel Islands

CSUCI's Credit Enhancement

- Began with a Mello-Roos Bond
 - No Revenues, No Development
 - Layered in a Tax Allocation Pledge
 - Still Not Investment Grade
 - One Technique Not Always Enough
- “Credit Engineering”
 - Worked Closely with Rating Agency
- Letter of Credit
- Triple-A Bond Insurance From MBIA
 - Without Revenues or Development

Getting Creative: Innovations

- Public Entity Guarantees
 - Tax Increment
 - General Fund
 - Enterprise Operations
- Prioritization of Liens: Senior/Subordinate Structures
- Use of Intercept Program
- Gross Revenue Pledge

Sifting Through the Options

Sifting Through the Options

- What Do You Want to Accomplish? What is the Goal?
 - Lowest Interest Rates?
 - Buyers?
- How to Evaluate the Price of Enhancement

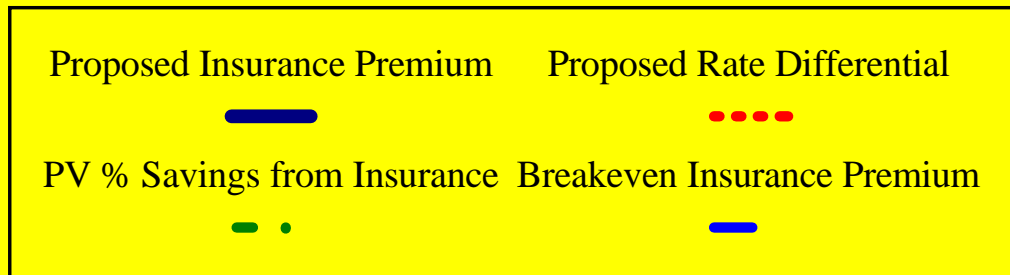
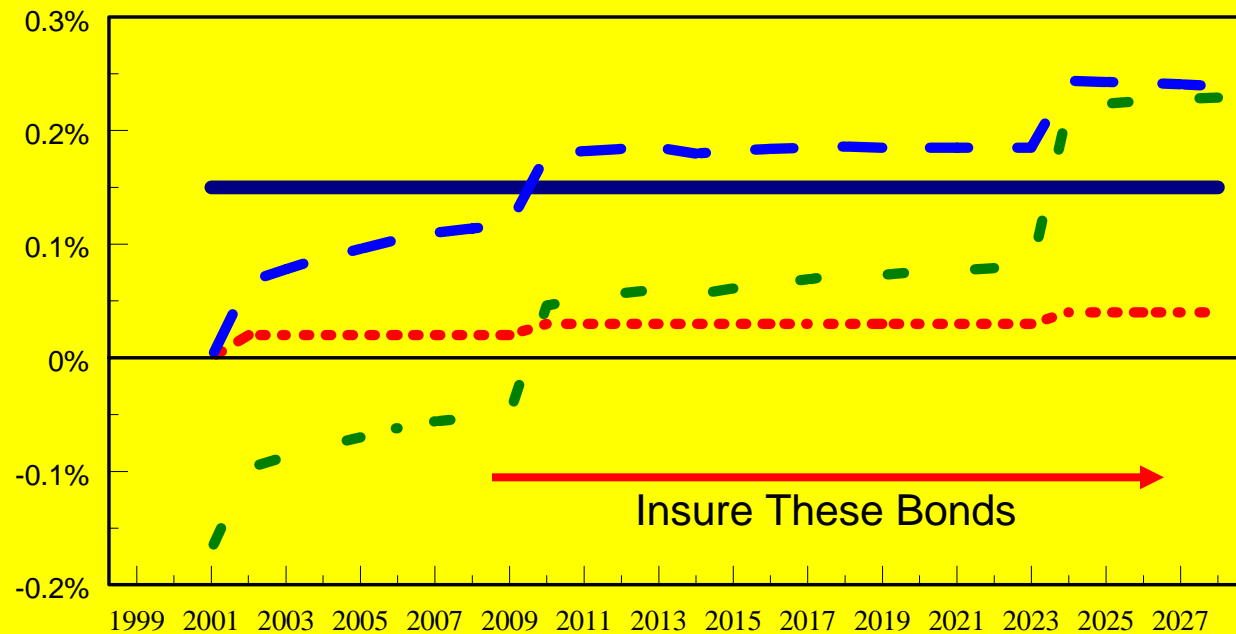
Checking the Scales

<u>Maturity</u>	<u>Yields</u>		<u>Interest Rate Differential</u>	<u>Proposed Insurance Premium</u>
	<u>Insured</u>	<u>Uninsured</u>		
2005	1.65%	1.80%	0.15%	0.15%
2006	1.75%	2.00%	0.25%	0.15%
2007	2.00%	2.26%	0.26%	0.15%
2008	2.24%	2.52%	0.28%	0.15%
2009	2.57%	2.86%	0.29%	0.15%
2014	3.50%	3.67%	0.17%	0.15%
2019	3.98%	4.10%	0.12%	0.15%
2024	4.39%	4.50%	0.11%	0.15%
2029	4.66%	4.78%	0.12%	0.15%
2034	4.70%	4.82%	0.12%	0.15%

Illustrative numbers only; not actual scale

Source: Municipal Market Data (Thomson)

Assessing the Insurance Option



Bond-By-Bond Analysis

Example One

- Large, Double-A Rated Issuer
- 30 Year Revenue Bonds
- Conclusion
 - Sold Serial Bonds Unenhanced
 - Sold Term Bonds Enhanced

Example Two

- Low Rated Issuer
- Very Large Bond Issue (Billions)
- Very High Demand for Issue
- Not all Maturities Show Savings Due to High Premium
- Insurer Sets Threshold Level of Insurance

Conclusion: The Bottom Line

Concluding Comments

- No One Technique Fits All Needs of All Issuers or All Financings for an Issuer
 - Some Needs Require Multiple Forms of Enhancement
- Market is Dynamic - The Right Choice Is Not Constant
 - Careful Analysis of Options Can Save You Money
- Real Time, Real Market Information is Essential
 - “Ask the Desk”

Questions and More Information

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